

## **MEXICAN SPOTTED OWL**

### **Strix occidentalis lucida**

---

**STATUS:** The Mexican Spotted Owl was listed as threatened in March of 1993. Critical habitat for the species was designated in June 1995. Since then, a number of lawsuits have been filed against the Fish and Wildlife Service alleging non-compliance with the National Environmental Policy Act during the designation process, and claiming that the Fish and Wildlife Service had no authority to designate critical habitat on Tribal lands. Critical habitat was officially rescinded as of March 25, 1998. The Mexican Spotted Owl Recovery Plan was issued in early 1996. Recovery Implementation Working Teams have been set up to correspond with recovery units throughout the range of the owl. These teams consist of representatives of Federal and State agencies, conservation groups, local governments, the timber industry, and other interested stakeholders.

**DESCRIPTION:** The spotted owl is mottled in appearance with irregular white and brown spots on its abdomen, back and head. The spots of the Mexican Spotted Owl are larger and more numerous than in the other two subspecies, giving it a lighter appearance. Unlike most owls, spotted owls have dark eyes. Several thin white bands mark an otherwise brown tail. Plumage characteristics in both sexes of spotted owls are similar, but the sexes can be readily distinguished by the voice. Although the spotted owl is characterized as a medium-sized owl, it is the fifth largest owl in North America. Like many other raptors, the female is larger than the male.

**LIFE HISTORY:** Mexican spotted owls generally live 15 years or more. They first breed at the age of 1 to 3 years. They do not nest every year. Courtship usually begins in March with pairs roosting together during the day and calling to each other at dusk. Eggs (generally 1 to 3) are typically laid in late March or early April. The incubation period is about 30 days. Eggs usually hatch in early May, with nestling owls fledging four to five weeks later, and then dispersing in mid-September to early October.

Seasonal movement patterns of Mexican spotted owls are variable. Some individuals are year-round residents within an area, some remain in the same general area but show shifts in habitat use patterns, and some migrate considerable distances (20-50 kilometers (km)) (12-31 miles (mi)) during the winter, generally migrating to more open habitat at lower elevations. The home-range size of Mexican spotted owls appears to vary considerably among habitats and/or geographic areas, ranging in size from 261-1,487 ha (647-3,688 ac) for individuals birds, and 381-1,551 ha (945-3,846 ac) for pairs. They consume a variety of prey throughout their range. They commonly eat small and medium sized rodents (woodrats, mice, and voles), bats, birds, reptiles, and arthropods.

The adult survival rate is generally 80 to 90 percent, but the average juvenile survival rate is considerably lower, at 6 to 29 percent. Causes of mortality may include predation by great horned owls, northern goshawks, red-tailed hawks, and golden eagles, as well as starvation, and collisions (e.g. with cars, powerlines).

**HABITAT:** Mexican spotted owls nest, roost, forage, and disperse in a diverse array of biotic communities. Mixed-conifer and pine-oak forests are commonly used throughout most of the range; however, they can be found in pinyon-juniper and ponderosa pine. Nesting habitat is typically in areas with complex forest structure or rock canyons, and contains mature or old-growth stands that are uneven-aged, multi-storied, and have high canopy closure. In the northern portion of the range (southern Utah and Colorado), most nests are in caves or on cliff ledges in steep-walled canyons. Elsewhere, the majority of nests appear to be in Douglas fir trees. A wider variety of tree species is used for roosting; however Douglas fir is the most commonly used species. In addition, owls generally use a wider variety of forest conditions for foraging than they use for nesting/roosting.

**DISTRIBUTION:** The Mexican Spotted Owl currently occupies a broad geographic area, which extends north from Aguascalientes, Mexico, through the mountains of Arizona, New Mexico, and western Texas, to the canyons of southern Utah and southwestern Colorado, and the Front Range of central Colorado. The owl occurs in disjunct localities that correspond to the availability of forested mountains and canyons. The current owl distribution mimics its historical extent, with a few exceptions. The owl has not been reported recently along major riparian corridors in Arizona and New Mexico, nor in historically documented areas of southern Mexico. Riparian communities and previously occupied localities in the Southwest and southern Mexico have undergone significant habitat alteration since the historical sightings.

**RECOVERY NEEDS:** The Mexican Spotted Owl Recovery Plan was issued in early 1996 and provides a framework for the owl's recovery through a series of management recommendations, as well as habitat monitoring and population monitoring. The Recovery Plan states two primary threats that managers should focus on in order to recover the species; catastrophic wildfire and the widespread use of even-aged silviculture. The Recovery Plan recommendations are a combination of (1) protection of both occupied habitats and unoccupied areas approaching characteristics of nesting habitat, (2) implementation of ecosystem management within unoccupied but potential habitat. The goal is to protect conditions and structures used by spotted owls where they exist and to set other stands on a trajectory to grow into replacement nest habitat or to provide conditions for foraging and dispersal.

In addition, the Fish and Wildlife Service helped form the Implementation Working Teams and allocated staff biologists' time to the Teams to support the goal of removing the owl from the list of endangered and threatened species. The role of these six Working Teams has been to translate conceptual facets of the Recovery Plan into on-the-ground practices, which differs somewhat among the various Recovery Units. The Working Teams have also been tackling tough issues within their local areas such as fire and urban-interface as well as working to resolve management conflicts related to forest practices and the owl. Such a diverse membership has allowed ideas of varying viewpoints to be discussed and has allowed local interested parties to participate in the Plan implementation as well as resolving local issues.